Editorial committee:
Robert Green
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et al.

MICOM

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THE MICROCOMPUTER CLUB OF MELBOURNE
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The Microcomputer Club of Melbourne (MICOM) meets at Burwood State College, in the community resources centre, building E, at 2 pm on the third Saturday of each month.

The CP/M Users Group of Melbourne (CPMUG) meets at Burwood State College, in the community resources centre, building E, at 7.30pm on the fourth Tuesday of each month.

The Peach Users Group (PUG) meets at Templestowe Technical College, Cypres Ave Templestowe, at 8 pm on the first Friday of each month.

MICOM operates a Computerised Bulletin Board System (CBBS) for message transfers between MICOM members. The system operates continuously, and may be accessed via a 300 baud modem on (03) 762 5088. Limited visitor access is available for non-members.

Meeting dates for 1983 and 1984:

	MICOM (sat 2pm)	CPMUG (tue 8pm)	PUG (fri 8pm)
December '83	17 (AGM)	none	
January	21 (BBQ)	24	none
February	18	28	3
March	17	22	2

At the last meeting

Karl Reed made many important points in his talk. I feel the most signifcant was his comment that most people are so dazzled by exciting new hardware that they are blinded to the importance of software. Our thanks once again to Karl for a most entertaining and educational talk. Thanks also to Ralphe Neill for agreeing to act as guest chairman, and doing such a capable job. Wonder if we could interest him in a permanent Committee position?

December Elections

This meeting will be the Annual General Meeting. May I remind all Committee members (including User Group Chairmen) that they should be prepared to deliver their (BRIEF) reports. Fulvio expects to be able to report a HUGE increase in turnover this year (If he doesn't abscond to Moonee Ponds first). A little (??) hairy bird tells me we now have about 450 members. Peter is up to his armpits in software. The library is functioning nicely. Our various user groups are still meeting regularly. We somehow manage to get this newsletter produced each month, and I hear that Haig has been papered in triplicate and buried in soft diskettes for six months. There. Now THAT'S what I call BRIEF!

January BBQ

As usual, MICOM will be holding a Barbecue in lieu of a January meeting this year. It will be held on the banks of the Yarra, probably the same place as a few years ago. BYO meat, drinks, boats (boats???) etc. More details, including directions, aerial photographs and full-color maps next month.

Prez Sez:

"This Space Intentionally Left Blank"

The Editorial Buffer

Firstly, this is not really Niggle at all. Nor is it Robert Green. I am, in fact, Fulvio. Why am I writing an editorial when I am not even on the editorial team? Well, Nigel has gone fishing, Andrew is asleep and even as I speak Robert is at home dying of an unknown ailment. Meanwhile in the next room, a group of MICOM people are watching the "Kentucky fried movie", when they were ostensibly here to help write this tome. Not that I mind, really. I mean, here I sit, able to say whatever I want to all of you out there, and nobody can stop me. The feeling of sheer POWER is positively underwhelming!

Well, enough silliness for the moment. Hello to all of you, especially those who have not heard from us for some time. For the benefit of those people who didn't know, each December we mail a newsletter to EVERYONE on the MICOM database. That includes unfinancial members, CBBS visitors, people who visited us at meetings at various times, other clubs, and sundry other bods. There are a couple of reasons for doing this. The main one, to my Treasurer-ish point of view, is the financial one. By the end of this month, many of you will be unfinancial. Therefore, you will find a renewal notice in with this issue. Now, seeing as how many people never get around to doing things like joining clubs, I figure being sent a renewal notice might spur some into action. If previous years are any indication, it seems I might be right. We always seem to get a huge influx of membership renewals each January from people we haven't heard from for ages.

Of course, money is not the only motive. We are all justly proud of the way MICOM has developed over the past (nearly) 8 years. We are now operating successfully in a number of areas, and we would naturally like people to know it. Those of you who haven't had anything to do with MICOM over the past few years should really drop in and see us again. You just might like what you see.

Just what HAVE we accomplished? Well, we have this Bulletin-board-thingy... Seriously, folks, CBBS is THE number one reason we have been so successful! Our membership has skyrocketed, we have much more contact with you (Most Committee people log on every day or so), our purchasing activities have expanded enormously, and we are able to provide a free service which in many ways is better than some commercial services around. If we continue to grow as we have been, you can expect our services to expand accordingly as money becomes available.

It has been suggested that we could charge for some of the services we will be providing. I personally favor the expansion of User Groups into these areas. Already we have MAGE (Modem Assisted Gaming Enthusiasts), which will be running play-by-modem games on the new bulletin board. These games will only be available to MAGE members, at a nominal charge over the normal MICOM membership fee. MICOM is very amenable to members setting up user groups, so if you know of someone wanting to get a group together, why not investigate setting it up as a MICOM User Group?

Some of you may be unaware that we operate a club library. We subscribe to a number of magazines, and have purchased many useful books as well. All these articles are available for members to borrow. Normally, books and magazines are available for perusal at club meetings, and, if borrowed, should be returned at the following meeting. There is no charge for this service.

You may have noticed that we publish a couple of lists in each issue of this newsletter. If you know of any businesses who are willing to give discounts to MICOM members, or if you know of any other clubs around the place, please let us know so we can include them. Virtually ALL the current discounts were arranged by me about two years ago. It is NOT that hard to simply ASK your friendly neighbourhood retailer. Show him this newsletter. He might even join!

If you are one of the increasing number of interstate members, please don't feel left out. While it is true that we are basically a Melbourne-based club, we DO have some services you can take advantage of. In many cases, our bulk-buys are STILL cheaper, even if you have to pay freight charges, however, often we can get things shipped direct to you at no charge. This newsletter, and the bulletin board, are available to ALL members, regardless of location.

Lastly, a plea. MICOM is run by a small, very dedicated group of people. The sort of people who will willingly sit down and fold 1200 newsletters like this one without complaining (well, not much, anyway). Organisations like this HAVE to have such dedicated people to survive. The trouble is, because we ARE people, we sometimes lose interest, get fed up, or just sort of drift away. Therefore, we need a constant supply of fresh 'talent'. There are a number of people out there who are very capable, and would be an asset to MICOM. If you feel you would like to get involved, please don't be shy. We need you and your ideas. And our methods are relatively painless. And speaking of ideas, even the best team in the world can't possibly think of EVERYTHING. Even if you don't want to get directly involved, you can help us by giving us your ideas and comments. We are all in this together, you know...

Peach Users Group

At the November meeting, Nick McGuigan of a certain company with a 3 letter name talked about mainframe to micro computer communications and how micros could be used as work stations to lessen the load on the mainframe. Eg. A query to a mainframe database would result in a batch of data being sent to the micro. The micro would format the data, present it to the user who could do some processing with programs such as spreadsheets, and then the updated information would be sent back to update the mainframe database. He also talked about the PC-junior which is not yet in Australia.

Please note that there will not be a January meeting of PUG so we will see you in February.

Elections will be held at the next meeting, so please start thinking about office bearers. OK, so now you have stopped thinking about it but someone has to do it.

Mail can be sent to the Peach Users Group c/- MICOM, or else via Branko Collavizza, P.O. Box 191, Rosanna 3084. You can ring him during decent hours on 434-2541.

More PUG stuff

Although the PEACH by HITACHI was released early in 1982 it has taken some 2 years before most of the early expectations have been fulfilled. The standard machine comes equipped with 32K (expandable to 64K, although a maximum of 32K can be used by BASIC), 7 colours, sound, parallel printer port, RS-232C port, programmable function keys, numeric keypad and light pen. The Microsoft Basic interpreter which comes as standard is sufficient in most respects, although the machine's graphics capabilities are not fully exploited. Disk drives (3", 5", 8", & hard disk) can be added complete with an auto-boot Microsoft DOS. Alternative operating systems such as Flex, OS-9, CP/M, MS-DOS and FORTH are now available, although additional hardware is required for all except FORTH and Flex. There are many

professionally developed software packages available. These include word processing, general ledgers, creditors/debtors, visicalc clones, payroll systems, database programs and a host of everyone's favourite games: Scrambler, Pac-man, Peach Panic, Chess, Pinball and others are available, as well as a collection of utility programs. Other packages in areas such as Surveying, Education and Statistics are currently under development. The PEACH is supported in Victoria by the MELBOURNE PEACH USERS GROUP, (A MICOM Special Interest Group) who meet on the first Friday of every month at 8pm at TEMPLESTOWE TECHNICAL SCHOOL.

Assembly Language Quickies by Stephen Thomas

How (and why) to write a pre-testing loop

Loops come in a number of flavours. The simplest kinds are the post-testing and pre-testing loops, which consist of a single block of instructions and a test of some sort. In a post-testing loop, the block of instructions is executed first and then the test is performed to see whether the block should be executed again; the instructions in a post-testing loop are always executed at least once. In a pre-testing loop, the test is executed first and may cause the block of instructions to be skipped entirely. Post-testing loops get used a lot in assembler, mainly because they're easy to write. For example, here's a simple post-testing loop in 6502 code to move COUNT bytes from HERE to THERE:

```
        LDX #0          ;initialize index
LOOP:   LDA HERE,X      ;get source byte
        STA THERE,X     ;move to destination
        INX             ;bump index
        CPX COUNT       ;done COUNT bytes yet?
        BLT LOOP        ;if no, go round again
```

This is by no means the most efficient way to do this in 6502 code, but it is reasonably illustrative. Now let's consider what happens when COUNT is zero. The index is initialized; a byte is moved; the index is incremented; 1 is not less than 0, so the loop ends. Note that a byte has been moved, even though we didn't really want it to be.

This is the sort of task that cries out for a pre-testing loop. The layout that immediately springs to mind for such a loop comes from the description: test first, controlled instructions after. Let's write one and see what happens.

```
        LDX #0          ;initialize index
TEST:   CPX COUNT       ;done COUNT bytes yet?
        BGE DONE        ;quit if so
        LDA HERE,X      ;get source byte
        STA THERE,X     ;move to destination
        INX             ;bump index
        JMP TEST        ;go round again
DONE:   (more code)
```

This loop behaves sensibly for all allowable values of COUNT, and is the form that most programmers seem to end up using - but it has a fundamental flaw. Notice that it's one instruction longer than the post-testing loop. That's quite OK, but notice that the extra step (the unconditional jump) is INSIDE the loop, slowing it down on every iteration! It's quite mind-boggling to consider the thousands of CPU hours wasted every year because of loops like this one.

Is there a way around the problem? Yes there is, and it's one of those rarities in assembler: a speed improvement that requires no more code. All it involves is taking the post-testing loop and entering it at a different place, like this:

```
        LDX #0          ;initialize index
        JMP TEST        ;start looping
LOOP:   LDA HERE,X      ;get source byte

        STA THERE,X     ;move to destination
        INX             ;bump index
TEST:   CPX COUNT       ;done COUNT bytes yet?
        BLT LOOP        ;if no, go round again
```

You see? The actual loop is identical to the post-tested version, so it's just as fast. That nuisancey JMP only gets executed once, so it doesn't slow the thing down much at all. And overall, it's EXACTLY the same size as the other pre-tested layout.

In 6502 code this sort of technique is even more valuable, as it allows the programmer to get around some of the warts in the design of the machine (and it has plenty). The 6502 does have two byte relative branches, but only conditional ones. It makes sense to use them if it's secure to do so, because they execute in exactly the same time as the three byte absolute jump (3 t states), take one byte less code, and are inherently relocatable. In the loop above, it would be completely secure to replace the JMP with a BEQ (Branch if EQual to zero), saving a byte of code.

Next issue: interesting applications of exclusive-OR.

Fulvio's Findings

Recently, I gained access to a Swedish computer conferencing system called COM. A conferencing system is a message system, much like a CBBS. The difference, however, is that messages are divided into groups by subject matter. Also, the system keeps track of which messages each person has read, so he only has to read them once. Soon, you too may have access to such a system.

As you probably already know, MICOM is building a new multi-user CBBS system, which we expect to be operational early in 1984. We have acquired a copy of a public-domain bulletin board system, called CITADEL, which we intend using on the new system. Citadel has been tested at various US sites, and has been running in Seattle since late 1981, continuously for the last year.

The following has been paraphrased from the Citadel documentation:

Citadel is a room-structured message system. The basic design goal was to provide a congenial forum conducive to interesting discussions. The software is intended to be as unobtrusive, unintrusive and unconstraining as possible. In software as elsewhere, good engineering is whatever gets the job done without calling attention to itself.

The fundamental design metaphor is of a building consisting of a series of independent rooms, each of which hosts a discussion devoted to a particular topic. Messages are stored and retrieved in chronological order within each room. Messages are formatted to the caller's screen width. Callers may travel freely between the rooms, reading old messages and posting new ones. New rooms may be created at will, and old ones are deleted when they empty of messages.

People familiar with other electronic message systems may wish to compare Citadel rooms with EIES conferences, ArpaNet mailing lists, individual "linear" BB systems or whatever; while the parallels are not exact, the functions are similar.

Private person-to-person mail is supported. Private rooms can host restricted conferences. Once visited, private rooms look exactly like other rooms to the participants, but they are not accessible to others who don't know the name of the room. The sysop can set up some rooms to be windows onto designated disk/userspace areas. These directory rooms support the usual message functions, but also allow one to to do directory listings by wildcard match, or to up/download files via Christensen protocol. Citadel also supports automatic networking of nodes.

Citadel is arranged as a series of rooms, starting with the LOBBY. In each room the user can read existing messages and leave more. There may be up to 128 rooms as currently implemented. The system is set up with two rooms; the LOBBY and the MAILROOM. Additional rooms are created by the users, with room names appropriate to the topics covered.

So, now you know that we plan to move out of our current one-room flat into a vast new mansion. Like a blind man, it took us a long time to learn to find our way around our current CBBS. Now that we all (especially Peter Jetson) know it like the back of our hands, we are about to go through the same process all over again. Oh well, that's the way it is in this field.

Random Ravings by Andrew Stewart

The revolution in the office is being led by the proletariat! What this means is professionals are demanding more power at their fingertips and are

justifying buying micros on the grounds of cost savings. For instance, a $4,000 machine used for one hour a day may seem wasteful but not if it is running a spreadsheet program that saves 2 or 3 days work.

An Osborne user group should have been formed by the time you read this. The first meeting was scheduled for the 4th of December but you can find out more information from Alison West at Direct Data in Armadale on 20-6949.

I, Andrew Stewart, do hereby claim to have won the Longest-Time-to-Build-A-System Award. My LSI-11 based system has taken almost 4 years to the day to type it's first period (RT-11 prompt). It should make it's grand appearance at the December meeting if all goes well, but please try not to be sick when you see it, as it also wins the Ugliest-Microcomputer-Unaward. It is built on a piece of chipboard for prototyping purposes but it does not seem likely to be repackaged (I can't afford to). Still, not many machines have a flip top backplane. (Signed the Mad Hobbyist and DECaholic)

Secretarial Sightings

Byte - September '83. Portable computers are featured in this issue.

Micro Cornucopia - October '83. Catch the article on converting the PRAXIS 35 Electronic Typewriter into an inexpensive 8 cps daisywheel printer.

Lifelines - October '83. Peter Jetson beat me up and robbed me before I could make a note of the contents.

Microsystems - October '83. While he was at it, Peter also swiped this one.

AUSOM Newsletter - December '83. The Winners of the AUSOM Challenge are announced in this issue and their programs are described.

The Computer Deli - Glen Waverley. The "Pony" is a cheap thermal printer with interfaces for the ATARI, Commodore, RS232 and Centronics standards. Suggested retail price is $166.

Sirius Software - Sacramento CA USA. The "Wavy Navy" and "Critical Mass" games are available for the Commodore 64.

Mega Data Computer Products - Lenexa KS USA. The Mega Mate holds 40 Apple][diskettes and allows

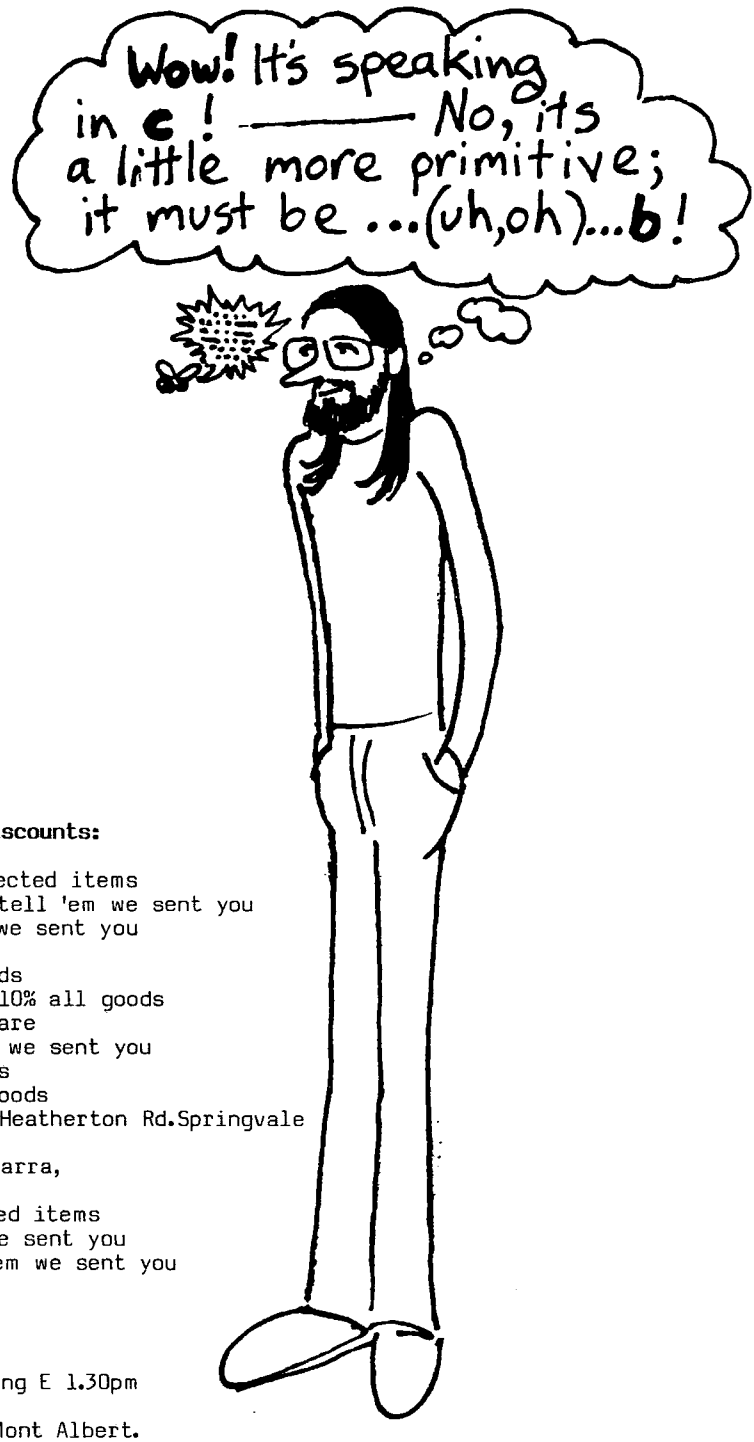
random access to each diskette without physical handling.

Canberra Micro-80 Newsletter - November '83.

Micom Bulk Buys

Cicada 300 baud modems		$190
RS232 4-wire cables to suit standard modems		$ 20
Cables made to order		$POA
Lockable Disk storage boxes:		
8" 40 disk capacity		$ 40
8" 90 disk capacity		$ 55
5" 40 disk capacity		$ 30
5" 90 disk capacity		$ 45
Diskettes:		
Nashua	5" ss/sd	$ 40
	5" ds/dd	$ 50
	8" ss/sd	$ 50
	8" ds/dd	$ 60
Verbatim	8" ss/sd Verex	$ 32
	5" ss/dd Datalife	$ 34
Wabash	5" ss/sd	$ 30
Printer Ribbons:		
C.ITOH 8510		$ 9
IBM Selectric II (Orange)		$ 3
IDS		$ 15
MX-80		$ 10
MX-100		$ 15
Okidata Microline 84		$ 6
'Almost Standard' 9.5"x11" paper		$ 26
Assorted scrap 9" & 15" paper		$POA
15" Computer listing binders		$ 2
9" Plastic Computer listing binders		$ 3
Empty 8" plastic library boxes		$ 7
Empty 5" diskette boxes		$ 3
Twinlock Fastfit suspension filing frames		$ 3
Twinlock Crystalfile suspension folders		70 cents
METAGON magnetic board games		$ 22

Haig Jason 288 5648 9am - 9pm
or Fulvio Gerardi 288 4712



Places to take your current MICOM membership card to for discounts:

ABACUS COMPUTER STORE, 512 Bridge Rd. Richmond - 5%-10% selected items
CHALLENGE, Shop 16B Westfield Shopping town Doncaster Rd.- tell 'em we sent you
COMPAK COMPUTER CENTRE, 350 South Rd. Moorabbin - tell 'em we sent you
COMP-SOFT, 235 Swan St. Richmond - tell 'em we sent you
COMPUTERLAND, 123 Lonsdale St. Melbourne - 7.5% on most goods
CONTEMPORARY SOUND CENTRE, 87-89 Riversdale Rd. Hawthorn - 10% all goods
DEFOREST SOFTWARE, 26 Station St. Nunawading - 10% on software
ENTERCOM COMPUTER CO., - 136 Bridge Rd. Richmond - tell 'em we sent you
GSE COMPUTERS, 47 Huntingdale Rd. Burwood - 10% on all items
GERARDI PHOTOGRAPHICS, 167 Elgin St. Carlton - 10% on all goods
HARDERS EDUCATION AND COMPUTER CONSULTANCY SERVICES - 941 Heatherton Rd.Springvale - tell 'em we sent you
MIND GAMES 275 Glenferrie Rd. Malvern, 591 Chapel St. Sth Yarra, and 200 Bourke St. Melbourne - 10% on all lines
PANATRONICS, 691 Whitehorse Rd. Mont Albert - 10% on selected items
THE COMPUTER FACTORY - 136 Bridge Rd. Richmond - tell 'em we sent you
THE COMPUTER SHOP, Kingsway & Albert Rd. Sth. Melb - tell 'em we sent you
THE LOGIC SHOP, 212 High St. Windsor - tell 'em we sent you

Club meeting venues

AUSOM - Burwood state college. Burwood Hwy. Burwood. Building E 1.30pm
BBUG - Call Haig Jason 288-5648 (9 a.m. - 9 p.m.)
COMPUCOLOR - Users Group. Panatronics, 691 Whitehorse Rd, Mont Albert.
CPMUG - Burwood state college. Burwood Hwy. Burwood. Building E 7.30pm
EASTERN - Suburbs 80 Users Group. Kingswood College. Station St Box Hill 7pm
FORTH - Interest Group. 65 Martin Rd. Glen Iris. 8pm
KAOS - Essendon primary school. Cnr. Nicholson & Raleigh Sts. Essendon
M.A.C.E. - Melb Atari Computer Enthusiasts. Rotunda Monash Uni 12 noon.
MICROBEE - Users Group. Burwood State College 7.30pm
PEACH - Templestowe Technical College. Cypres Ave Templestowe. 8pm
PENINSULA - Frankston East Hall, Beach St, Frankston, 7.30pm
SCUA - Burwood State College. 2pm
TEACH-80 - Waverley Community Centre, Miller st., Mt Waverley.

MICOM

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P.O. Box 60. Canterbury 3126

Project Planning Sheet

YEAR: 1983/84

MONTH: DEC/JAN

Mon	Tues	Wed	Thur	Fri	Sat	Sun
12	13 PENINSULA COMPUCOLOR	14 MICROBEE	15	16	17 MICOM	18
19	20 BBUG	21 VIC20	22	23	24	25 XMAS
26	27 CPMUG	28 EASTERN	29	30	31	1 NEW YEAR
2	3	4	5	6	7	8
9	10	11	12	13	14	15